

Application No.: 09/857,611

Docket No.: 21854-00019-US

COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

1.-11. (Cancelled)

12. (Currently amended) A biodegradable polymer for thermoforming rigid packaging products having the composition:

- a) 8 to 80% of a starch modified to include a[[n]] hydroxyalkyl C₂₋₆ group or modified by reaction with an anhydride of a carboxylic acid
- b) 4 to 11% of a water soluble polymer selected from polyvinylacetate and polyvinyl alcohol
- c) up to 12% added water
- d) 0 to [[12]] 10% of a polyol plasticizer
- e) 0.1 to 1.5% of a C₁₂₋₂₂ fatty acid or salt
- f) the balance being a natural starch.

13. (Previously presented) A composition as claimed in claim 12 wherein component e) is stearic acid.

14. (Previously presented) A composition as claimed in claim 12 wherein component b) is a polyvinyl alcohol component.

15. (Currently amended) A composition as claimed in claim 12 wherein the polyol [[plasticiser]] plasticizer is glycerol.

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16. (Currently amended) A composition as claimed in claim 12 wherein the polyol ~~[[plasticiser]]~~ plasticizer content is zero and added water is from 10 to 12%.

17. (Canceled)

18. (Previously presented) A polymer product composition as claimed in claim ~~[[17]]~~ 22 further comprising wherein component d is stearic acid.

19. (Previously presented) A composition as claimed in claim ~~[[17]]~~ 23 comprising wherein component a is a polyvinyl alcohol.

20. (Withdrawn and currently amended) A process for forming starch polymer products according to claim 12 comprising which includes the steps of:

- a) forming a mixture of starch, a modified starch, a water soluble polymer or copolymer containing vinyl alcohols units, up to 20% of added water and a polyol plasticizer and 0.4 to 1.5% by weight of a C₁₂₋₂₂ fatty acid or salt;
- b) working the mixture and forming a melt within the temperature range of 130°C to 160°C, and
- c) reducing the temperature and further working the mixture and then extruding the mixture or injecting the mixture into a mould at a temperature of 85°C to 105°C without the need to remove water.

21. (Withdrawn) A process for forming starch polymer products as claimed in claim 20 wherein the polymer is extruded into a sheet and subsequently thermoformed into a packaging tray.

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22. (New) A biodegradable polymer product suitable for use in thermoforming rigid packaging products, said polymer comprising: a) 8-80% starch modified to include a hydroxyalkyl C_{2-6} group or modified by reaction with an anhydride of a carboxylic acid; b) 4-11% of a water soluble polymer comprising polyvinylacetate and/or polyvinyl alcohol; c) up to 12% added water; d) 0-10% polyol plasticizer.

23. (New) A biodegradable polymer product as claimed in claim 22, wherein d is substantially 0%.